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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,361	02/06/2004	Tsuncnori Soma	03500.017891.	5039

5514 7590 03/01/2007  
FITZPATRICK CELLA HARPER & SCINTO  
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NEW YORK, NY 10112

EXAMINER
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VO, ANH T N

ART UNIT	PAPER NUMBER
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2861

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/772,361	<b>Applicant(s)</b> SOMA, TSUNENORI	
	<b>Examiner</b> Anh T.N. Vo	<b>Art Unit</b> 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-17 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 6, 18 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/30/2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The references cited on PTO 1449 have been considered.

## **CLAIM REJECTIONS**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,7-9, 11-17,20-23 and 25 are rejected under 35 USC 102 (b) as being anticipated by Ayata et al. (US Pat. 4,463,359).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Ayata et al. disclose in Figures 1, 12A-12B, 14-17, 19-21, 33-35 an ink jet printer comprising :

- a liquid ejection section (LZH) having a plurality of sets of a liquid ejecting nozzle (LGP) adapted to eject liquid onto a medium (PP) (Figures 1 and 12B);
- a liquid containing section (JB1-JB9) communicating with the liquid ejecting nozzle and a supply port (IS) for supplying liquid to the liquid containing section (JB1-JB9) (Figures 12B, 15-17 and 20);
- a liquid supply section (IT, OP) having a liquid supply member (IT) arranged therein to store liquid to be applied and adapted to supply liquid to said liquid containing sections (JB1-JB9) by way of the supply ports (IS) (Figures 12B, 15-17 and 20);
- an information recording body (CS) arranged at the liquid ejection section (LZH) and/or the liquid supply member of the liquid supply section (Figure 12B);
- an information reading device (RS) adapted to read information recorded in the information recording body (CS) (Figure 34).
- wherein said liquid supply section (IT, OP) has a plurality of syringes (OP1-OPn) and a plurality of drive sections (D1-D56) (Figures 20-21);
- wherein the supply ports (IS) of said liquid ejection section are arranged on a plane (Figures 14-15 and 17);
- wherein said plurality of syringes (OP1-OPn) of the liquid supply section and said plurality of supply ports (IS) of the liquid ejection section are arranged in rows and columns and the pitch of arrangement of said plurality of syringes and that of said plurality of supply ports correspond to each other (Figures 14-7);
- wherein said liquid supply member (IT) comprises a plurality of well plates (ITC, ITM, ITY), each carrying a plurality of wells formed therein, that can store different types (cyan, magenta, yellow) of liquid (Figures 12A-12B);

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- wherein said information recording body (CS) provided at the liquid ejection section (LZH) contains at least information indicating that the liquid ejection section is a liquid receiving side (Figures 12A-12B);
- wherein said liquid containing sections (JB1-JB9) and said nozzles of the liquid ejection section are integrally formed and said plurality of sets are partly of wells formed therein, that can store different types of liquid and each of replaceable (Figures 14-17);
- means (CC) for controlling the amount of liquid remaining in said liquid containing sections;
- wherein said information recording body (CS) has bar codes (Figure 12B);
- wherein said liquid ejection section (LZP) has an ink-jet application means (H1-H7) and/or electrothermal transducers for generating thermal energy to be used to eject liquid for ejecting liquid from said nozzles (Figure 14);
- a lid (DK) for covering said liquid ejection section adapted to cover all or part of said information recording body (CS) (Figure 34).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 24 are rejected under 35 USC 103 (a) as being unpatentable over by Ayata et al. (US Pat. 4,463,359).

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Ayata et al. disclose the basic features of the claimed invention was stated above but do not disclose that the liquid is ejected from ejection ports by utilizing film boiling produced by liquid due to thermal energy generated by said electrothermal transducers is seen as a design expedient for an engineer depending upon a particular environment and the applications in which the film boiling produced by liquid are to be used in the ink jet printing head for the purpose of ejecting the liquid from nozzles of the head. It is notoriously well known in the art that the film boiling produced by liquid due to thermal energy generated by said electrothermal transducers are widely used in the ink jet printing head would be obvious to a person having ordinary skill in the art at the time of the invention.

#### ***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. The prior art references (US Pat. 5,958,342; US Pat. 6,039,430; US Pat. 6,053,597; US Pat. 6,123,863; US Pat. 6,585,345; US Pat. 6,655,775) cited in the PTO 892 form show an ink jet print head that is deemed to be relevant to the present invention. These references should be reviewed.

#### ***Allowable Subject Matter***

Claims 6 and 18-19 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because the prior art references in the record fail to teach or suggest a liquid applicator comprising an information recording body that contains at least information indicating a liquid supplying side, information specifying a region for the liquid containing sections and information indicating the time limit of use and the authorized number of times of supply of liquid contained in said liquid supply member in the combination as claimed.


#### ***CONCLUSION***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262.

The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M..

The fax number of this Group 2861 is (571) 273-8300.



**ANH T.N. VO**  
**PRIMARY EXAMINER**

February 23, 2007